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Introduction to Integration Testing

Master Integration Testing for Seamless Software Functionality!

DEFINITION

Integration testing checks how different software modules work together. It ensures that combined components function correctly as a whole.

KEY CONCEPTS

Types of Integration Testing

There are various types, including big bang, incremental, and top-down integration testing.

Test Cases

Integration tests require specific test cases that focus on interactions between modules.

Defect Detection

The primary goal is to identify defects in the interaction between integrated components.

Tools and Frameworks

Common tools include JUnit, TestNG, and Postman for API testing.

Continuous Integration

Integration testing is often part of continuous integration practices to ensure ongoing quality.

EXAMPLES

- Testing a payment module with a shopping cart module.
- Verifying data flow between a front-end application and a back-end database.
- Ensuring that user authentication works with multiple services.

MEMORY TIPS

- ★ Remember 'I' for Integration: It connects different parts.
- ★ Use the acronym 'TIDE' for Types: Top-down, Incremental, Big bang, and End-to-end.
- ★ Think of integration as a puzzle: all pieces must fit together.

COMMON MISTAKES

- ✗ Neglecting to test all module interactions.
- ✗ Overlooking edge cases during integration.
- ✗ Assuming integration is complete without thorough testing.

QUICK RECAP

Integration testing is crucial for ensuring that software modules work together effectively. Focus on testing interactions and using appropriate tools to catch defects early.